Canadian Fire Underwriters' Association.

MERCANTILE SCHEDULE.

ORDINARY BUILDING STANDARD.

A Standard Building is one having walls of brick or stone (brick preferred) not less than 12 inches thick (one and one-half bricks) at top story, 16 inches if stone, extending through, and 12 inches above roof in parapet, coped, on all sides, and increasing four inches (one half-brick), in thickness for each story below to the ground, or of an equivalent average thickness, the increased thickness to be utilized for beam ledges, or wall corbelled to provide same.

Iron or steel columns or beams if used must be properly protected by concrete, brick, terra cotta, or wire lathing and concrete plaster.

Ground floor area not to exceed 2,500 square feet, say, 25 x 100.

Height not over three stories or forty feet.

Cornices to be of incombustible material.

Roof to be flat (mansard not permitted), covered with slate, metal, tile, or approved felt and gravel, without roof space, cock loft or attic, (sawdust filling not permitted).

No vertical opening.

Elevators and stairways cut off by brick walls, or by concrete plaster on metallic studs and metallic lathing, continued from basement up through roof, communication at each floor protected with approved tin-covered doors or metal doors with wire glass if lighting necessary. Sills to be incombustible, skylight over elevator to be of thin glass with approved wire guard over.

All weights, cables and other elevator connections except motor to be enclosed in elevator shaft.

Skylights not permitted unless of wired glass set in metal frames. Floor lights to be not less than ¾ of an inch thick.

F5012-C1906?]C212M

Windows and doors on front, sides, or rear of building when exposed, to be protected by approved tin-covered doors and shutters (shutters must be so arranged that they can be opened from outside), or wired glass in metal frame, or a water curtain. (Windows are exposed when within 100 feet of another building.)

Walls of flues to be not less than eight inches (one brick) in thickness, lined with fire brick, well burned clay or cast iron pipe; throat capacity not to be less than 96 square inches if steam boiler is used; all floor timbers to be trimmed at least four inches from outside of flue.

Heating by hot water or steam at low pressure.

Lighting by gas, with rigid fixtures.

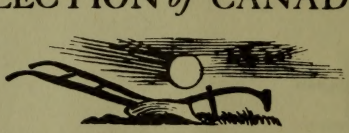
Interior finish, open, or lath and plaster, or metal.

Wood or other combustible finish prohibited.

For slow burning, mill or other improved features of construction see Standards for such.

The key rate is determined upon the municipal fire protection appliances provided.

The EDITH *and* LORNE PIERCE
COLLECTION *of* CANADIANA



Queen's University at Kingston

WALLS. *Charge for one wall only—the most deficient.*

300 INDEPENDENT—Charge for EACH 4 INCHES deficiency in average from standard (if building over 4 stories high, double the charge) ..... .01

301 On buildings over 3 stories high, if average thickness less than 12 inches, add not less than ..... .05

If two independent walls adjoin, 4 inches may be deducted from average of these requirements.

A STANDARD INDEPENDENT WALL should be 12 inches (or one and one-half bricks) thick at the top story and increase 4 inches (or one-half brick) for each story to the bottom. This would require, if three stories, an average of 16 inches; 4 stories, 18 inches; 5 stories, 20 inches; 6 stories, 22 inches; 7 stories, 24 inches.

302 PARTY—Charge for EACH INCH deficiency in average from standard (if building over 4 stories high, double the charge) ... .01

303 If party wall less than 12 inches thick in any portion, add not less than. ..... .05

A STANDARD PARTY WALL should be 16 inches (or two bricks) thick at the top story, increasing 4 inches (or one-half brick) for each story below. Average required for 3 story building, 20 inches; 4 story, 22 inches; 5 story, 24 inches; 6 story, 26 inches; 7 story, 28 inches, etc.

304 Brick veneered building, charge ..... .25

305 WALLS NOT PARAPET, each exposed side, charge ..... .01

306 PARAPET WALLS, all round, and when exceeding one foot above roof on exposed sides, deduct for each foot in excess of one (not exceeding a total of .03) ..... .01

307 POOR BRICKS or poor quality mortar, charge ..... .10

308 GLASS AND WOOD, or IRON FRONTS, for each not backed up with bricks and mortar, charge ..... .03

309 GLASS AND WOOD, or Iron Fronts, for each backed up, charge. .01

310 GLASS AND WOOD, or Iron Fronts, for each adjoining in row, in addition to above, charge ..... .01

HEIGHT.

311 For fourth story, charge ..... .05

312 Fifth story, charge ..... .10

313 Sixth story, charge ..... .15

314 For each story over six, charge ..... .20

These charges cumulative; for example, a 6 story building would have 30 cents added.

315 When by reason of high basement or extra height in any story the average is greater than standard allows, make a proportionate increase of the charge for the next highest story. Standard height, 3 story building, 40 feet, and 12 feet for each additional story.

316 For third story brick veneered building, charge ..... .05

317 Two story building, deduct ..... .02

318 One story building, deduct ..... .05

STREET.

319 If street on which building fronts is inaccessible, unpaved, etc., charge not less than ..... .10
(No charge if no fire department, and no charge for side or rear streets.)

320 If less than 60 feet wide, but over 50, charge ..... .01

321 If under 50 feet, add for each five feet less ..... .01

STREET WIRES.

322 If to interfere with fire department, charge ..... .01 to .05

323 **WOODEN CORNICES, CUPOLAS,** Dormer Windows or Verandahs, charge from ..... .01 to .05

INTERIOR FINISH.

324 Wood (natural or painted) or Strawboard CEILING, 1 story, charge, .03; each additional story, charge ..... .02

325 Wood or Strawboard SIDING, 1 story, charge, .03; each additional story, charge ..... .02
Double each charge if wood be varnished.

326 Wood partitions 1st floor, charge .05, each additional floor, charge ..... .03
No charge if less than 8 feet high or for office partitions. If more wood shelving than ordinary, charge as for wooden partitions.

327 Cloth or paper ceiling or siding on wooden studs, each story, charge ..... .10

328 Metallic studs and lathing throughout, deduct ..... .05

329 Metallic lathing on wooden studs, deduct ..... .02

330 Brick walls, or plastered directly on brick deduct for each floor .. .01½

331 Open joist ceiling, deduct for each floor ..... .01½

332 do do if limewashed deduct for each floor ..... .01½

FLOORS.

333 If sawdust or other combustible material used for filling between floors or in roof; charge for roof or first floor, 10c.; each additional ..... .05
Half charge if charged for wood sheathing.

334 Tin or sheet-iron between floors, deduct for each floor ..... .02

335 Water-proof paper, tarred, or cement between floors, deduct for each floor ..... .01

336 Floors water-proof and also inclined with scuppers to carry off surplus water to sewer, deduct for each floor ..... .02

337 Floor beams and girders, self-releasing, deduct, each floor ..... .01

338 If floor exceeds two inches in thickness, *when on joists*, deduct for each excess inch (in addition to above) each floor ..... .01

339 If grade floor fire-proof, or of mill construction, at least 3 in. thick and 1 in. wearing floor on wooden beams and posts, deduct ..... .10

340 Each additional similar floor above grade, deduct ..... .05
Deductions for floors not to exceed 25c.
Allow only half the deductions for Nos. 338, 339 and 340 if elevators not trapped, stairways not closed, if open well holes, or if steel "I" beams and columns insufficiently protected.

341 No cellar or basement, deduct ..... .05

AREA (Ground Floor).

No charge if area does not exceed 2,500 sq. feet.

342 For first 2,500 sq. feet over 2,500 sq. feet, charge.... 1c. per 1,000

343 For second 5,000 " 5,000 " .... 2c. "

344 For third " " " " .... 3c. "

345 For fourth " " " " .... 4c. "

If building 4 stories high, increase charge..... 25%

" 5 " " 50%

" 6 " " 75%

" 7 " " 100%

Brick veneered building double charge.

346 ONE-STORY BUILDING, one-half the charge for 3 story.

347 TWO-STORY BUILDING, two-thirds the charge for 3 story.

348 SINGLE OCCUPANCY.—If one tenant outside of dwelling and office tenants twenty per cent. (20%) of the area charge may be deducted.

349 If CURTAIN, CROSS OR DIVISION WALLS, sub-dividing and strengthening the building, even though with arched openings, deduct 10% of area charge for each wall so dividing the risk. Communications with adjoining buildings unless protected, charge for area of both buildings, and rate as one (allowing for division wall). If fire-doors on communications are not standard, rate as if standard and make an additional charge under "Exposures" for defective doors.

Total deductions not to exceed 40% of area charge.

350 SMALL RISKS under 1,500 sq. ft. ground floor area and not over 3 stories high, deduct..... .05

SMALL FRAME REARS.

351 Extensions, for each 100 feet wall area (not more in all than 15c.), charge..... .01

If brick veneered, metal clad, or with openings protected with approved fire doors, half charge.

If of large area or over 1 story high, rate separately.

FLOOR OPENINGS.

352 All floor openings to be charged as per table, with 25% added to each item for each story over 3 in height. For 2-story building, deduct 25%. If any unprotected opening extending to upper floor, charge not less than..... .10

Maximum total charge for floor openings..... .25

NOTE.—Where charge is made for more than one floor opening, take full amount of highest charge, one-half of next lower, and one-quarter of each additional.

No charge for stairway in private dwelling portion of risk.

WELL HOLES.

353 If open, charge for each (half charge for approved traps) from .03 to..... .05

If stairway and elevator are enclosed, open well holes to be charged in full as floor openings.

STAIRWAYS.

354 Fire-proof shaft but slightly defective, or sub-standard fire doors, charge. 01

355 do do with seriously defective, or ordinary doors, charge. 02

356 do do but with no doors, charge. 10

357 Concrete or other non-combustible shaft not continuous from basement or walls not through roof, with standard fire doors, charge. 02

358 do do but with defective or sub-standard doors, charge. 03

359 do do with ordinary doors, charge. 04

360 do do with no doors, charge. 10

361 Enclosed in lath and plaster, hallway with automatic doors, or provided with approved automatic traps in floors, charge. 04

362 do do with ordinary doors or traps closed only at night, charge. 05

363 Open, charge. 10

364 Enclosed in wood (2 inch plank matched or splined) with automatic doors of equal thickness, the enclosure to be as nearly air tight as possible and without interior windows except of wire glass, charge. 03

365 Enclosed in wood (less than 2-inch plank) with self-closing doors, charge. 05

366 do do with ordinary doors, charge. 07

367 do do without doors, charge. 10

ELEVATORS.

368 Fire-proof shaft but slightly defective or sub-standard door, or walls not extending through roof. 01

369 If shaft not ventilated at top to outside, charge. 02

370 do do with very defective or ordinary doors, charge. .05

371 Concrete shaft not continuous from basement or not extending through roof, but with standard fire doors, charge. 02

372 do do with defective or sub-standard fire doors, charge. 03

373 do do with ordinary doors, charge. 05

374 do do with no door, charge. 10

375 Enclosed in lath and plaster hallway or shaft with approved automatic traps, or sub-standard fire doors, charge. 05

376 do do but with ordinary doors or traps, charge. 07

377 Wooden shaft (2-inch plank) with automatic doors or traps equal to shaft, charge. 05

378 do do with ordinary doors or traps charge. 07

379 Wooden shaft less than 2-inch, charge. 15

380 Open, charge. 10

381 With approved automatic traps, charge. 05

382 With traps closed only at night, charge. 07

383 Elevator and stairway in hallway in office or hotel building, when opening directly into similar hallway or corridor on all floors, charge. 07

384 Elevator or other shaft communicating with roof space. 25

CHUTES, VENTS AND DUMB WAITERS.

385 Unless fire-proof shaft, charge for each floor (if trapped half charge). 01

SKYLIGHTS.

386 If of thin glass (less than ¼ inch), in any kind of frame, charge for first 25 feet of area of roof opening .02, and for each additional 10 feet of area 0½

If ¼ inch glass in wooden frames, half charge.

If ¼ inch glass in metal or protected frames, one-fourth charge.

If protected above and below by wire netting, halve the charge.

If wired glass in metal or protected frames, free.

Same charges for floor-lights less than ¾ inch thick.

Total charge for skylights not to exceed ..... .25

IRON COLUMNS OR BEAMS UNPROTECTED.

387 Charge ½c. for each column or beam (double charge if steel or wrought iron), not to exceed in all 10c.

NOTE.—Steel "I" beams used in place of wooden beams in buildings of ordinary construction, and not over 2,500 feet of floor area, if covered with lath and plaster no charge.

LIGHTING.

388 Electricity, approved. ..... .02

389 Kerosene, charge. ..... .05

390 Kerosene in light manufacturing or multiple occupancy, for each floor, charge. ..... .05

391 Kerosene lighting in paint shops or carpenter shops, not less than. .10

No charge for Kerosene lighting in dwelling part of risk.

392 Gasoline, wire tube system ..... .05

Any other system for lighting must be subject to approval and charged for according to Board Regulations.

HEATING.

393 If by hot air furnace, charge not less than ..... .03

Each additional, charge ..... .01

394 Stove (must have metal under), charge ..... .03

For each additional stove ..... .01

395 Stoves in wood working establishments, charge .....10 to .25

396 If shavings or waste used for fuel add ..... .50

397 Natural gas or oil fuel, approved pressure regulating appliances, charge. ..... .05

398 Steam or hot water pipes in contact with wood, charge not less than. ..... .01

When not properly installed see faults of management.

399 Steam or hot water boiler (for heating only) in fire-proof room, or adjoining with standard fire door, or borrowed heat, deduct.02½

This deduction not allowed if fire heat used in building.

400 Blower system, brick flues, charge ..... .05

If ducts or flues are metal double the charge. Half charge if flues are provided with automatic dampers at each floor opening.

CHIMNEYS.

401 Not built from ground, but on bracket, charge. ..... .05

Each additional, charge ..... .02

402 If inadequate for service required, or walls of flues less than 8 inches thick, unless lined with pipe, charge not less than.... .05

403 If resting on attic floor beams or roof joists, charge ..... .25

404 Poor bricks or mortar, charge ..... .20

405 Terra-cotta or cement, charge ..... .50

406 If metal stack in building carefully installed, charge ..... .25

POWER.

407 If steam, charge for boiler in fire-proof room with standard fire door. 20
408 do do used for generating electric power only, charge. .10
409 Boiler with 3 feet space over dome and 10 feet clear of combustible material all round, charge. 25
410 do do used for generating electric power only, charge. .15
411 Boiler otherwise than as above, charge not less than. 30
412 do do used for generating electric power only, charge. .20
413 Wood shavings for fuel, charge additional. 1.00
Power other than steam, charge according to hazard and occupancy table.

ROOF.

414 COMPOSITION AND GRAVEL, if not well covered, charge. 02
415 SHINGLES (if laid in mortar 5c.), charge. 10
416 MANSARD with wooden frame, 4 story or lower building, charge for each lineal five feet, but not more than 10c. for one side, or 15c in all. 01
" on building 5 stories or more in height, charge ¼c. additional for each lineal five feet, for each story over four.
Frame or metal clad additions on roof charge as mansard.
Frame or metal clad side, or rear, of upper story, charge as mansard.
Limit of charge, 18c. for 5 story building, 22c. 6 story building. 27c. 7 story building.

BLIND ATTIC, ROOF SPACE, COCK LOFT.

417 Take maximum height if slanting roof, and charge for each vertical foot .01, not less than .03 or more than. 05

CONDITION OF BUILDING.

418 Charge when building not in good condition. . . . . .05 to .25

OCCUPANCY.

419 Each ordinary mercantile occupancy in excess of one, exclusive of office and dwelling tenants, charge. 05
420 Each hazardous mercantile occupancy, charge. 10
421 Each light manufacturing occupancy, less than 25 hands, charge. .10
422 Each light manufacturing occupancy, 25 to 50 hands, charge. 15
423 Each light manufacturing occupancy, over 50 hands, charge. 20
424 Occupancy, exclusively dwelling above grade floor, if one family, deduct. 10
425 If any one floor so occupied, deduct. 05
426 Occupancy, dwelling above grade floor, if two families, deduct. . . .05
427 Occupancy, if building occupied throughout exclusively for offices, or dwelling and offices, rate as mercantile and deduct½ of final charge, except exposure.
428 If Lodge Hall, Mission Hall, Barber, or other non-hazardous occupants in building used otherwise exclusively for offices, rate as mercantile, and deduct according to number, from 25% to 50% of final charge, except exposure.
429 Occupancy, if occupied exclusively above grade floor for offices or offices and dwelling, deduct. 05

DISTANCE FROM HYDRANT.

430 Charge if not with 300 feet of hydrant on at least 4 in. main circulating, or at least 6 in. main dead end, in proportion to distance, but not less than ..... .05

PROTECTION.

431 Iron fire escapes outside of building, with landings at each floor, deduct ..... .02

432 Casks of water or filled pails on each floor (6 filled pails to each 2,500 square feet of floor space, or one APPROVED chemical fire extinguisher), deduct 5% not exceeding ..... .05

(One-half number of pails should be filled with sand when paints or oils are kept. One cask may be considered the equivalent of three pails.)

433 Standpipe, internal, with auxiliary tank supply, deduct ..... .10

434 Standpipe, internal, without tank supply, deduct ..... .05

435 Standpipe, external, with siamese connection for use of fire department, on buildings over 5 stories high, deduct ..... .05

436 Each side or rear accessible to fire department at least 25 ft. in width (no deduction for front), deduct ..... .02

437 Fire department house, engine, hose or hook and ladder, within 300 feet, deduct .01; if next door or on opposite side of street, deduct ..... .02

438 Basement and sub-cellar with perforated pipe sprinklers, deduct. .05

439 Automatic sprinklers in basement (no deduction if allowance has been made for sprinklers throughout building), deduct ..... .10

440 Roof hydrants, if protected from freezing and hose provided, deduct ..... .02

441 Auxiliary private fire plant, force pump, etc., deduct ..... .10

442 Watchman, with portable clock, deduct 5% of building rate, not exceeding ..... .10

443 Watchman, with electric detector, deduct 7½% of building rate, not exceeding ..... .12½

444 Watchman with standard central alarm system, certificate to be furnished every six months, deduct 10%, not exceeding .... .15

EXPOSURES. to be charged by inspectors according to circumstances, and as per printed exposure table.

CONFLAGRATION HAZARD. Charge for such when conditions require.

CHARGES FOR FAULTS OF MANAGEMENT, EASILY CORRECTED.

445 If stovepipes through floors or partition, not protected, .50; through window, roof or wall, with double metal chimney, .50; not protected, 1.00; entering bottom of flue vertically, .25; entering flue in attic or unused room, etc., charge..... .25

446 Floor beneath stove not protected, charge..... .05

447 Bottom of elevator shaft used for closets, etc., or waste, charge.. .50

448 Swinging gas brackets or bracket lamps unprotected, charge for each..... .01

449 Untidiness, rubbish, ashes, etc., especially in cellar or attic. charge..... .25

450 Packing material not in bins, charge..... .15

451 Cracked or bulged walls, thin and worn floors, broken plastering, broken windows, etc., charge..... .10 to .25

452 Empty boxes, rubbish, etc., in rear yard, alleys, window recesses, under sidewalk, gratings, etc., charge..... .10

453 Open lights in show windows or electric bulbs covered with tissue paper or paper shades, charge..... .25

454 Sawdust on floors, sawdust spittoons, etc., charge..... .25

455 Kerosene used to sprinkle floors, charge..... .25

456 Ash and waste cans, not metal, charge..... .10

457 Furnace top within 4 inches of wooden beams or ceilings, if brick; or within 12 inches if portable, without metallic shield, charge..... .10 to .25

458 Fire-places, hearths on wooden beams, or floors within 16 inches of fire-place; or wooden fire-boards, or summer pieces, or unprotected wooden mantles, or open stovepipe holes, charge, .05 to..... .25

459 Electric lighting or other system, with installation not in compliance with underwriters' rules; or arc lights unprotected by tight globes or metal screens, charge..... .25

460 Crowded merchandise without proper aisles, opposite or too near windows, or overloading, charge not less than..... .25

RECOMMENDATIONS PERTAINING TO CONSTRUCTION CHANGES IN BUILDINGS OF INFERIOR OR FAULTY CONSTRUCTION.

20. Sheathing or plastering. (*Alternatives a., b., c. and d.*)

a. To be entirely removed if not fastened direct to studding or joists, i.e., if there are spaces or openings from one stud or joist channel to another.

b. All openings in sheathing or plastering (from room to the concealed spaces) to be tightly "stopped" and sheathing to be kept in good repair.

c. Sheathing to be removed if of wood or other inflammable material.

d. Sheathing on either walls or ceiling to be covered with metal.

21. Concealed spaces at walls.—To be tightly shut off at each floor by heavy plank "stops" or two courses of brick (preferably the latter).

22. Concealed spaces on Ceiling.—The joist spaces to have plank "stops" at intervals not exceeding 30 feet.

23. Finish.—Oil shellac, varnish or similar finish to be removed. A fire retardant paint is advised.

24. Cornice. (*Alternatives a, b and c*)—

a. Boxed cornice to be removed.

b. For unexposed risks, boxed cornice (if not removed) to have 2-inch plank "stops" placed at intervals not exceeding 30 feet.

c. For exposed risks, boxed cornice (if not exposed) to have 2-inch plank stops placed at intervals not exceeding 30 feet and to be properly covered with lock-jointed tin, the tin extending under roof covering.

25. Skylights (*other than over fire-proof shafts*); (*alternatives a and b.*)—

a. To be of wired glass in metal frame.

b. To be protected by screens supported on iron frames from 4 to 6 inches above the glass, mesh to be not greater than 1 inch, wire not less than No. 12, as provided for in standard.

26. Elevators.—If not in brick shaft with standard fire doors. (*Alternatives a., b. and c.*)

a. To be enclosed in a substantial enclosure such as terra cotta, wire lath or expanded metal with iron studding and approved concrete plaster on both sides, with standard automatic fire doors on all openings.

b. To be enclosed in wood, two thicknesses of matched boards, or 2-inch plank matched or splined, with automatic doors of equal thickness, the enclosure to be as nearly air tight as possible, and without interior windows except of wire glass.

c. To have trap door at each floor opening, held open by fusible link in accordance with standard requirements, to be always closed at night.

27. Floor Openings or Well Holes.—(*Alternatives a. and b.*)

a. To be closed with floor lights, glass for same to be not less than ¾ inch thick.

b. To have trap doors held open by fusible link, to be always closed at night.

29. Stairways.—To be enclosed in a similar manner to elevators No. 26.

RECOMMENDATIONS PERTAINING TO CONSTRUCTION CHANGES IN BUILDINGS OF INFERIOR OR FAULTY CONSTRUCTION.—Continued.

30. Belt Openings (*in floors*).—To have curbing at least 3 inches high. Belt holes to be made as small as possible.

31. Belt Boxes.—To be removed and suitable incombustible guards or screening substituted.

32. Dumb Waiters and Chutes.—To be enclosed by sheet metal or by wire lath or expanded metal and plaster, with metal or tin covered doors at all openings, preferably doors to be self-closing.

33 Fire Doors.—To be in accordance with the National Board Standard. To be placed on all openings in fire walls or against exposures, as designated by the Underwriters having jurisdiction. All fire doors to be kept closed when not in use, and to be provided with approved automatic self-closing devices. Door frames or jambs must be removed and door placed directly on masonry.

34. Shutters.—To be in accordance with the National Board Standard. To be placed on all windows in fire walls or against exposures, as designated by the Underwriters having jurisdiction. Shutters to be closed and fastened whenever it is not necessary to keep them open. Shutters must be so arranged that they can be opened from outside.

35. Wired Glass Windows.—To be of approved wired glass in National Board Standard metal frames. To be placed at all window openings in fire walls or against exposures, as designated by the Underwriters having jurisdiction. Window sashes to be provided with approved automatic self-closing devices.

RECOMMENDATIONS PERTAINING TO STANDARDS FOR HEAT, LIGHT AND POWER.

40. Steam Pipes.—To be properly bushed where passing through woodwork, and to be properly supported and kept away from woodwork. No combustible material to be allowed to rest against steam pipes, and where necessary, pipes to be suitably protected. The overhead method of steam piping is preferred.

41. Boilers.—

a. To be in a brick building either detached or with a standard cut-off from main building.

b. To be in a room of fireproof construction with standard cut-off.

42. Boiler Stack.—

a. To be of brick (double with air space if in main building) or if iron, to be outside or on a brick foundation extending through and 3 feet above the roof, such stack to be kept at least 12 inches away from any woodwork. Throat capacity to be not less than 96 square inches.

b. An iron stack inside building is unapproved. Wherever such conditions exist, the following safeguards should be adhered to. Where passing through roof or floor, iron stack to have 12 inches clear space with a properly constructed metal collar extending at least 12 inches above and below all woodwork, and stack to be properly protected by metal guards or netting so that combustible material cannot rest against the stack.

43. Uptakes from Boilers.—To be not less than 3 feet from all timbers, joist or other woodwork unless uptake is completely covered with at least 4 inches of approved insulating material, in which case the distance may be reduced to 12 inches.

44. Lighting—

a. To be by approved electric or gas system.

b. If electricty, to be installed in accordance with the National Electric Code and subject to approval of Canadian Fire Underwriters' Association.

c. If gas, jets to be made stationary where practicable, and when so located that they can come in contact with woodwork or other combustible material, jets to be protected by wire globes or guards or to have proper ventilated shield.

d. Any form of lighting other than electricity or gas may increase the hazard and in any event, such lighting must be installed according to the rules and requirements of the National Board, and subject to approval of Canadian Fire Underwriters' Association.

e. Kerosene oil lamps are not approved. If used, the following safeguards should be adhered to: Lamps to be supported by substantial metal hangers, there being a proper heat guard to protect the hanger and material overhead. Only approved metal or metal cased lamps to be used. Central draught lamps are not allowed.

45. Power.—If electric or gas. to be installed according to the rules and requirements of the National Board, and subject to approval of Canadian Fire Underwriters' Association.

RECOMMENDATIONS PERTAINING TO WATCHMEN OR THERMOSTATS.

50. Watchmen.—To be maintained nights, Sundays and holidays and at all times when plant is not in operation. An approved Central Station System, an approved electric clock system, or an approved portable clock to be used by means of which the watchman shall record rounds whenever plant is not in operation. Clock dials to be dated and filed for inspection. Rounds to be made at least once an hour during the night (i.e., 6 p.m. to 6 a.m.) and at least once in every two hours during the day. The watchman should only be employed for watching the plant. There should be a sufficient number of stations to insure watchman visiting all portions or risk. Stations to be located and arranged under instructions given by the Underwriters having jurisdiction. Wiring and any other matters pertaining to stations or system to be installed according to the rules of the National Board and subject to approval of Canadian Fire Underwriters' Association.

51. Electric Fire Alarm Thermostats.—Approved type to be installed throughout all portions of risk. System to be arranged so that an alarm will be given at an approved central station or at places designated by the Underwriters having jurisdiction. System to be installed according to the rules of the National Board and subject to approval of Canadian Fire Underwriters' Association.

MISCELLANEOUS RECOMMENDATIONS.

60. Water Pails or Extinguishers—

a. Approved type of water pails to be properly distributed about risk in the proportion of one dozen to every 5,000 square feet of floor area, to be hung on posts or set on shelves not over 5 feet high. Pails to be kept full at all times and to be inspected weekly. Pails to be 12 quarts capacity each, or an approved fire bucket tank of not less than 24 gallons capacity, with 6 pails enclosed therein.

b. Three pails and one filled cask of at least 60 gallons capacity or one approved portable chemical extinguisher (dry powder extinguishers not accepted) and 6 pails to be considered the equivalent of 12 pails.

NOTE.—In all cases, there must be at least half the number of pails on each floor as required by the rule of 12 to each 5,000 square feet of floor area, i.e., only one-half of the pails required on each floor can be replaced by one or more chemical extinguishers.

61. Sand Pails.—Pails of dry sand (with scoop) to be provided wherever oils, varnish or similar inflammable liquids are stored or used.

62. Cleanliness.—To be satisfactorily maintained. This requires the use of the most modern appliances (blowers, dust collectors, etc.,). Also special attention to be given to nooks and corners, space under benches, care of oily waste, shafting, blower journals and disposition of sweepings and ordinary floor refuse. Approved metal barrels or ash cans to be made use of in the disposition of sweepings, refuse or ashes.

63. Waste Cans.—To be provided wherever oily waste is used and in other places where necessary. Cans to be of approved type.

64. Inspection by the Assured.—A systematic inspection of all fire appliances and other matters pertaining to the fire risk to be made at least weekly and preferably daily by some reliable and responsible party. A written report to be made, reports to be dated and kept on file.

65. Smoking.—To be prohibited and signs to that effect hung in each room.

66. Oils, Paints, Varnishes and Similar Compounds.—Main supply to be kept in a satisfactory outside building. Where this is impracticable, main supply may be kept in an oil room constructed according to standard specifications. A day's supply only to be allowed outside of the oil room.

NOTE.—*Detail of standard for any requirement will be furnished on application to the Secretary of the Association in Montreal or Toronto.*

2,500: Mar. '06.